

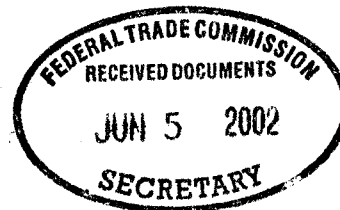


The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
250 Washington Street, Boston, MA 02108-4619

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GOVERNOR

ROBERT P. GITTENS
SECRETARY

HOWARD K. KOH, MD, MPH
COMMISSIONER



May 31, 2002

The Honorable Donald S. Clark
Secretary
Federal Trade Commission
600 Pennsylvania Ave NW
Washington, D.C. 20580

Dear Secretary Clark:

We are writing to you to ask the Federal Trade Commission to reject the request submitted by the U.S. Smokeless Tobacco Company (UST) dated February 5, 2002 to allow smokeless tobacco manufacturers to claim in their advertisements that the use of smokeless tobacco invokes significantly less risk of adverse health effects than smoking cigarettes. We disagree with this request for the following reasons.

UST has traditionally marketed smokeless tobacco products as starter products into tobacco use, using a "graduation strategy" that encourages young people to start with low nicotine oral snuff and then switch to high nicotine products as nicotine dependence progresses. A copy of an article we have authored on this topic is appended.

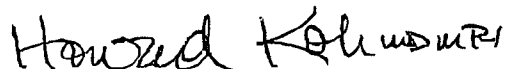
UST signed the Smokeless Tobacco Master Settlement Agreement in November of 1998 and agreed not to directly or indirectly advertise smokeless tobacco products to youth. A similar provision is contained in the Master Settlement Agreement between the cigarette manufacturers and states' Attorney Generals. After signing the MSA, Philip Morris, Brown and Williamson and Lorillard dropped advertising in youth magazines. However, UST continues to place half of its advertising in magazines with high youth readership. We are enclosing a study we have conducted on the topic.

Despite UST's claim that they wish to promote smokeless tobacco as a "safer alternative" to cigarette smoking for adult smokers, their advertising practices clearly show that the Company is targeting young people. By allowing them to make such a claim, they could expand their efforts to market to youth arguing that the product is safer than cigarette smoking.

UST asks for a blanket approval for their claims for all smokeless tobacco products. We think this is wrong. The Massachusetts Department of Public Health commissioned research on the levels of tobacco specific-nitrosamines (TSNA) in oral snuff in 2001. TSNAs are the principal cancer-causing agents in oral snuff. We found a hundred fold difference in levels among the six brands tested. Also, we found that levels of TSNA increased as the product aged on the shelf. Technologies exist to greatly reduce TSNA levels in oral snuff and we find it hypocritical that on the one hand a manufacturer could make a blanket claim that their product was safer than cigarettes and on the other hand not employ new technology across the board to dramatically reduce TSNA levels for all of the brands.

The Commission should reject the UST request and refer it to the Federal Food and Drug Commission (FDA) for their consideration.

Sincerely,

Handwritten signature of Howard K. Koh in cursive script.

Howard K. Koh, M.D., M.P.H.
Commissioner

Smokeless Tobacco Advertising Expenditures
Before and After the
Smokeless Tobacco Master Settlement Agreement

A Report of the Massachusetts Department of Public Health

May 2002

Smokeless Tobacco Advertising Expenditures Before and After the Smokeless Tobacco Master Settlement Agreement

On November 23, 1998, United States Smokeless Tobacco Company (USST) settled with 44 States' Attorneys Generals regarding smokeless tobacco-related health costs incurred by the states' Medicaid programs. USST was the only smokeless tobacco manufacturer to be sued as part of the Smokeless Tobacco Master Settlement Agreement (STMSA), and they were the only company to sign the settlement agreement. In addition to monetary payments to the states, the STMSA required the elimination of certain types of outdoor tobacco advertisements, including those found on billboards, in arenas, stadiums, shopping malls, and video arcades, and on private or public transit vehicles or waiting areas. The STMSA also forbade tobacco manufacturers from "directly or indirectly targeting youth in their promotional activities, or engaging in activities with the primary purpose of initiating, maintaining or increasing youth tobacco use."¹ The provision is identical to that stipulated by the Master Settlement Agreement between the States' Attorney Generals and major cigarette² manufacturers.

In 1995, the Food and Drug Administration proposed a rule on tobacco products prohibiting advertising in "youth" magazines with greater than 15% youth readers (age under 18) or two million plus youth readers.³ In response to complaints by the States' Attorneys Generals that advertising in youth magazines violated the MSA, Philip Morris curtailed cigarette advertising in magazines with 15% or more youth readers or two million plus youth readers in 1999. Two other tobacco companies, Brown and Williamson and Lorillard, also agreed not to advertise in magazines with 15% or more youth readers and with 18% or more youth readers, respectively.^{4 5}

⁶ The purpose of this present study is to determine whether USST similarly stopped advertising in magazines with a significant number of youth readers after signing the STMSA.

Method

To evaluate whether USST reduced advertising after the adoption of the STMSA, we compared smokeless tobacco advertising in the United States for each year from 1997 through 2001. The average, annual expenditures for two time periods, pre STMSA (1997, 1998) and post STMSA (1999, 2000, 2001) are also compared. We also contrasted expenditures by USST with other manufacturers of smokeless tobacco who did not sign the SSMA, specifically Swisher, Conwood, and Swedish Match. This current analysis focuses on expenditures for advertising in all magazines with at least 15 percent youth readership or over two million youth readers.

Data Sources

We obtained estimated annual cigarette expenditures for media advertising from Competitive Media Reporting (CMR), a commercial vendor that monitors advertisements in major magazines published in the United States.⁷ CMR estimates the dollars a company spends on advertising by obtaining published prices for advertisements, and multiplying those prices by the number of ads appearing in popular magazines. Youth and adult readership were estimated based on consumer surveys conducted by Simmons Market Research Bureau, Inc. (SMRB).¹ In 1997, 1998, and 1999, twelve magazines met the criteria for youth readers that ran smokeless tobacco advertising. The number fell to nine for 2000 and 2001 as Field & Stream, Popular Science and Outdoor Life were reclassified as adult magazines. Because the nature of the readership changed from 1997-2001, these three magazines have been excluded from the youth analyses, and advertisements in these magazines are calculated separately. All other magazines maintained their classification as

¹ For the year 1997, the 1996 Simmons Teen-Age Research (STARS) and 1996 Simmons Fall SMM were used to determine whether the magazine was in the youth or adult category. For the years 1998 and 1999, the 1998 STARS/Prizm and the 1998 Simmons Spring SMM/Prizm reports were used to categorize the magazines. For the year 2000, the Simmons NCS Teens Fall 2000 and full year Prizm reports were used. For 2001, the Simmons NCS Teens Spring 2001/Prizm and Simmons Spring 2001 NCS, full year Prizm reports were used.

either adult or youth from 1997 through 2001. The nine magazines that were consistently rated as "youth" magazines are listed in Appendix A.

Results

As detailed in Table 1, overall smokeless tobacco magazine advertising expenditures rose from \$9.4 million to \$24 million from 1997 to 2001, a 150% increase. For USST, expenditures increased from \$6.9 million to \$16.2 million, a 135% increase.

Table 1: Expenditures on Smokeless Tobacco Magazine Advertising 1997-2001 by Company (in millions of dollars)

	1997	1998	1999	2000	2001
USST					
Youth	\$3,585	\$7,245	\$6,366	\$2,631	\$9,374
Other	3,303	6,140	7,297	7,966	6,872
Sub Total	6,888	13,384	13,663	10,598	16,246
Swisher					
Youth	\$1,057	\$ 910	\$ 853	\$1,016	\$ 955
Other	1,036	872	1,474	1,350	1,557
Sub Total	2,093	1,782	2,327	2,366	2,512
Conwood					
Youth	\$ 0	\$ 91	\$ 257	\$ 176	\$ 0
Other	0	222	541	686	882
Sub Total	0	313	798	862	882
Swedish Match					
Youth	\$ 129	\$1,939	\$765	\$ 706	\$ 776
Other	273	1,311	1,945	1,484	3,558
Sub Total	402	3,250	2,710	2,190	4,333
<hr/>					
ALL					
Youth	\$4,771	\$10,184	\$8,240	\$4,529	\$11,104
Other	4,611	8,543	11,287	11,486	12,868
Total	\$9,382	\$18,727	\$19,527	\$16,015	\$23,972

*Other includes adult magazines and magazines that changed classification

Most importantly, youth magazine advertising also rose, from \$4.7 million in 1997 to \$11.1 million in 2001 for all companies. This figure reflects a 136% increase in advertising expenditures. For USST, the increase from 1997 to 2001 was 161%, from \$3.6 million to \$9.4 million. As Table 2 indicates, USST continued to allocate a substantial proportion of their advertising dollars to youth magazines. Despite their signing of the STMSA, USST increased their advertisements in youth magazines 13%, from an average of \$5.4 million dollars in the pre-STMSA period to an average of \$6.1 million dollars in the post-STMSA period. In the period from 1999-2001, USST placed close to half (45%) their smokeless tobacco advertising dollars in magazines that were read by a substantial number of adolescents. This 45% is only slightly lower than the Pre-STMSA percentage of 53%. The increase in advertising dollars spent in youth magazines by USST is in marked contrast to the three other smokeless tobacco companies that decreased by 11% their overall spending in youth magazines. Swisher, Conwood, and Swedish Match decreased their advertising of smokeless tobacco in youth-oriented magazines from an average of \$2,063 million dollars in the pre-STMSA period to \$1,834 million dollars in the post-STMSA period. Additionally these three companies decreased the percentage of their budget (from 53% to 29%) that was devoted to advertisements in magazines with a substantial youth readership.

**Table 2: Smokeless Tobacco Magazine Advertising
Pre-Post the STSMA by Youth and Adult Magazines
Average Annual Expenditures (in millions of dollars)**

	Pre STSMA		Post STSMA	
	97-98 Average	% of expenditures	99-01 Average	% of expenditures
USST				
Youth	\$5,415	53%	\$6,123	45%
Other	4,721	47%	7,378	55%
Subtotal	\$10,135		\$13,501	
Swisher, Conwood, Swedish Match Combined Totals				
Youth	\$2,063	53%	\$1,834	29%
Other	1,857	47%	4,492	71%
Subtotal	3,920		6,326	
All Companies				
Youth	\$7,478	53%	\$7,957	40%
Other	6,578	47%	11,870	60%
Total	\$14,056		\$19,827	

*Other includes adult magazines and magazines that changed classification.

Data from Table 3 indicates the amount of advertising, for both USST and the three remaining smokeless tobacco companies, for the periods before and after the STSMA. During the post-settlement period, USST paid Sports Illustrated an average of \$2.5 million each year for advertising its brands. In addition, USST paid Rolling Stone magazine \$937,000, Motor Trend magazine \$844,000, and Hot Rod magazine \$767,000. All of these magazines have more than twenty-percent youth readership and more than two million plus youth readers. Data from Table 4 enumerates both the percent of youth readers for each of the nine youth magazines and the number of youth readers exposed to smokeless tobacco advertisements. Twenty-three percent of

the readers of Sports Illustrated are adolescents between the age of 12-17; that is, 7.2 million adolescents are exposed to USST smokeless tobacco advertisements. Similarly, Rolling Stone, with a 28% youth readership, is read by 3.3 million adolescents; Motor Trend, with a 25% youth readership, is read by 2.1 million adolescent readers; and Hot Rod, with a 31% youth readership, is read by 2.9 million adolescent readers. These figures demonstrate that USST's smokeless tobacco advertisements continued to reach a significant number of adolescents.

Table 3: Smokeless Tobacco Average Annual Youth magazine Advertising Expenditures Pre/Post the STMSA for USST and Other Companies

	PRE 1997-98				TOTAL	POST 1999-01				
	USST of ads	%	OTHER ¹ of ads	%		USST of ads	%	OTHER ¹ of ads	%	TOTAL
Sports Illustrated	\$2,759	72%	\$1,076	28%	\$3,835	\$2,486	74%	\$871	26%	\$3,357
Hot Rod	323	44%	407	56%	730	767	69%	345	31%	1112
Rolling Stone	810	79%	211	21%	1021	937	100%	0	0%	937
Motor Trend	188	100%	0	0%	188	844	94%	55	6%	899
Sporting News	491	76%	159	24%	650	435	49%	449	51%	884
Sport	273	57%	296	61%	482	293	78%	83	22%	376
TV Guide	167	100%	0	0%	167	258	100%	0	0%	258
Popular Science	347	100%	0	0%	347	92	100%	0	0%	92
Spin	58	100%	0	0%	58	13	30%	31	70%	44
Total	\$5,416	72%	\$2,149	29%	\$7,478	\$6,125	77%	\$1,834		\$7,959

¹ OTHER = Swisher, Conwood, Swedish Match combined advertisements

Table 4: Percentage and Number of Youth Readers for Major Youth Magazines

	% Youth Readers (1998)	Youth Readers (in 000's)
Sports Illustrated	23%	7,254
Hot Rod	31%	2,937
Rolling Stone	28%	3,318
Motor Trend	25%	2,131
Sporting News	30%	1,190
Sport	33%	2,605
TV Guide	16%	8,131
Popular Science	30%	2,559
Spin	32%	1,316
Total		31,441

Conclusion

Despite the restrictions placed on youth advertising by the STMSA, USST continues to heavily advertise in youth-oriented magazines. Expenditures on youth advertising actually increased after the STMSA, and expenditures remain high. Although USST was the only signatory to the STMSA, the company continued to heavily advertise their brands in magazines popular with youth. This is in sharp contrast to the actions of the three major cigarette manufacturers who curtailed advertising in youth magazines in 1999, one year after signing the MSA, and to smokeless tobacco companies who did not sign the STMSA.

Appendix A

Magazines consistently rated as Youth from 1997-2001.

Sports Illustrated

Hot Rod

Rolling Stone

Motor Trend

Sporting News

Sport

TV Guide

Popular Science

Spin

¹ Smokeless Tobacco Master Settlement Agreement. November, 1998: 16 Provision III Permanent Relief (a) Prohibition in Youth Targeting.

² Master Settlement Agreement. November, 1998: 18-19 Provision III Permanent Relief (a) Prohibition on Youth Targeting.

³ 21 CFR Post 801 et al. Regulation Restricting the Sale and Distribution of Cigarettes and Smokeless Tobacco Products to Protect Children and Adolescents: Proposed Rule. Federal Register, August 11, 1995.

⁴ Orlowsky, M. to Gregoire, C., Letter. Lorillard Tobacco Company, Greensboro, N.C., February 9, 2001.

⁵ Szymanczyk, M.F. to Gregoire, C. Letter. Philip Morris USA, New York, June 2, 2000.

⁶ Fisher, M.F., to Gregoire, C. Letter. Brown & Williamson Tobacco, Louisville, KY, November 28, 2000.

⁷ Federal Trade Commission Report to Congress for the Years 1998 and 1999 Pursuant to the Comprehensive Smokeless Tobacco Health Education Account of 1986. Federal Trade Commission, Washington, D.C. 2001.

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SPECIAL COMMUNICATION

The marketing of nicotine addiction by one oral snuff manufacturer

Gregory N Connolly

Abstract

Oral snuff is a form of smokeless tobacco that has been shown to cause oral cancer, gum disease, and nicotine dependence. Since 1970 use of oral snuff has soared among young males. I believe this increased use is a direct result of an industry advertising and marketing campaign that encourages young non-users to experiment with low nicotine starter products with the intent of graduating new users up to higher nicotine brands as dependence progresses. This article reviews internal industry documents offered into evidence in a 1986 Oklahoma court case, tobacco and advertising industry trade literature, and advertising and promotional material that shows how one snuff manufacturer markets nicotine dependence to young people.

(Tobacco Control 1995; 4: 73-79)

Keywords: smokeless tobacco; marketing; nicotine addiction

Introduction

Oral snuff is a finely cut, processed tobacco which the user places between the cheek and gum. Nicotine is released from the tobacco and absorbed by the membranes of the mouth. In 1986 the US Surgeon General concluded that use of this product causes oral cancer, gum disease, and nicotine addiction.¹ More recent research suggests that snuff use increases the risk of cardiovascular disease, including heart attack.²

In recent years, use of oral snuff has risen dramatically among young men. From 1970 to 1991, the prevalence of snuff use among men aged 18 and older rose from 1.5% to 3.3%; among men 18-24 years old, it increased more than eightfold from 0.7% to 6.2%, making this age group the heaviest users of the product among those surveyed.³ The 1990 Youth Risk Behavior Survey found that 24% of all white male high school students had used smokeless tobacco at least once during the past month.⁴ A 1989 National Collegiate Athletic Association (NCAA) survey of college athletes found a

40% increase (from 20% to 28%) in smokeless tobacco use from 1985 to 1989.⁵ Among NCAA baseball players, an alarming 57% were users.⁵ There is new evidence which suggests that these increases are no accident, but the result of a sophisticated marketing campaign that developed, advertised, and promoted use of oral snuff starter products with low levels of free (un-ionised) nicotine as part of a graduation strategy that intended new users to move up to brands higher in nicotine as tolerance developed. The high nicotine brands are highly addictive and high in cancer-causing nitrosamines.

Two studies published in this issue of *Tobacco Control* confirm that the amount of nicotine available for uptake by snuff consumers varies systematically according to brand.^{6,7} This paper will describe the evidence available which indicates how manufacturers manipulate free nicotine levels, the role of starter brands in one company's "graduation" strategy, and how advertising and promotions encourage experimentation and nicotine addiction among new users. The evidence presented here has been collected from a variety of sources, including documents offered into evidence in a 1986 Oklahoma court case, tobacco and advertising industry trade literature, Congressional hearings, and other sources.

Control of free nicotine

Oral snuff manufacturers control the nicotine levels delivered to their consumers by controlling the amount of total nicotine in their brands, the level of free nicotine that is available for uptake into the body, and, in the case of Skoal Bandits, the size of the dose by using portion packs of tobacco in a mouth bag. In the 1986 Oklahoma court case *Marsee vs US Tobacco Company*, the plaintiff's attorney discussed a 1981 document on US Tobacco Company (UST) stationery from Per Erik Lindquist, UST's Senior Vice President of marketing, to Barry J Nova, President of the Tobacco Division. The document explained why the levels of nicotine were controlled: "Flavorwise we should try for innovation. Taste and strength (nicotine) should be medium, recognizing the fact that virtually all tobacco usage is based upon nicotine ('the kick') satisfaction."^{8,9}

Total nicotine is controlled through selection and blending of tobacco leaf. Levels of

This article is based on testimony presented by Dr Connolly to the Subcommittee on Health and the Environment, Committee on Energy and Commerce, US House of Representatives, 29 November 1994.

free nicotine are controlled by adjusting the pH, which is done through fermentation, by adding alkaline buffering agents such as sodium carbonate and ammonium carbonate, or by altering moisture content. Free nicotine, which is formed as the pH of the tobacco increases, is rapidly absorbed across the membranes of the mouth into the body.¹⁰ The two alkalising chemicals just mentioned appear on the list of non-tobacco materials used as additives in moist snuff that the industry trade association, the Smokeless Tobacco Council, supplied to the US House of Representatives Subcommittee on Health and the Environment in April 1994.¹¹

The Swedish Tobacco Company, which also manufactures oral snuff and owns the US snuff company Pinkerton Tobacco Company, intentionally controls the level of free nicotine. The company commented on its production process in a 1994 report,¹² *Smokeless Tobacco from Gothenburg* (translated from Swedish): "In order to release the nicotine from the tobacco, the snuff is made slightly alkaline—sodium carbonate is added during the production process as this alters into bicarbonate."

The company's fact sheet entitled *Sunsetts innehåll*¹³ [*The content of snuff*] further states (translated from Swedish): "Sodium carbonate (Na_2CO_3), which is active in increasing the pH level, makes nicotine more easily released from the tobacco and subsequently facilitates the uptake of nicotine through the mucous membranes of the mouth. The sodium carbonate is altered in the snuff into bicarbonate (NaHCO_3)."

In an October 1994 article in the *Wall Street Journal*,¹⁴ two former UST chemists were quoted on how the company apparently manipulates nicotine: "US Tobacco routinely adds chemicals to its snuff to deliver the free nicotine faster and to make the product stronger" — Larry Story (former US Tobacco chemist). "The fermentation process involves adding chemicals and, at the end, you add some more chemicals which increase pH too.... Without increasing the pH, you couldn't get nicotine release." — James C. Taft (former US Tobacco chemist). "It (Copenhagen) was brought up to a pH of 7.8 by adding more sodium carbonate and ammonium carbonate" — Larry Story.

Starter brands and the "graduation" strategy

If a new user starts with the standard high nicotine brands such as UST's Skoal Fine Cut or Copenhagen, a toxic response such as dizziness or nausea may occur. The novice is more likely to quit before tolerance to the toxic effects of nicotine develops. To respond to this problem and to expand its user base, UST developed low nicotine starter brands: Happy Days, Skoal Bandits, and Skoal Long Cut.

Happy Days was a loose, fine-cut tobacco with low free nicotine which was first introduced in the late 1960s. Evidence from the *Marsee vs UST* court case shows UST concern

with three design problems—"float", "lip burn", and "size of pinch"—that prevented new users from getting accustomed to the smokeless tobacco.¹⁵ "Float" referred to movement of the tobacco around the mouth, which could possibly result in too quick a release of nicotine or poor contact with oral tissue. "Lip burn" could be caused by the chemical and physical irritation of the tobacco contacting the oral tissues. The size of the pinch is critical if a new user is to achieve a sufficient pharmacological response from nicotine but not one so high that it induces a toxic effect such as nausea. Based on these problems, UST embarked on the "Lotus Project" to develop a starter portion pack of tobacco product in a teabag-like pouch.

Three documents from the *Marsee vs UST* court case further elaborated on the strategy. In minutes from a 1968 meeting, LA Bantle, then a UST vice president and later company chairman and chief executive officer, stated: "We must sell the use of tobacco in the mouth and appeal to young people... we hope to start a fad."¹⁶

In the same document Dr Word B Bennett, who was in charge of research for UST, summarised the meeting's recommendations, one of which was: "Develop new products. For example, artificial snuff—a consumable confectionery which would satisfy the snuff user."¹⁶

Two later documents from 1972 further described the Lotus Project.¹⁵ The project was first developed by United Scandja International, a joint venture between UST and Swedish Tobacco Company. A memorandum of 2 June 1972 described the activities of two working groups, one from UST and the other from Swedish Tobacco. A second Lotus document, dated 18 July 1972, was the minutes of a meeting held at UST headquarters in which Bantle stated that he wanted a Lotus Project—smokeless tobacco in a portion pack for the US market—and instructed a UST task force to embark on this. As part of those minutes, the Lotus Project was described, and the target group was defined as "new users, mainly cigarette smokers, age group 15–35". The "strength" of the new product was termed "nicotine satisfaction", and the product was compared to UST's existing brand Happy Days. In 1983, UST introduced Skoal Bandits, which closely resembled the product described in the 1972 memorandum. This design controlled tobacco placement and the size of the dose. It also avoided the tobacco having direct tissue contact.

In 1984, UST introduced another new starter product called Skoal Long Cut, which further addressed these problems.¹⁷ The Long Cut used larger pieces of tobacco and included a binding agent that allowed the user to pack the tobacco into a tight bolus, thus avoiding the "float". The bolus may also allow for a uniform, slow release of nicotine and may be less irritating to the oral tissue than conventional fine-cut snuff. Moreover, the bolus replaced the need for a mouth bag, which may not have been appealing to "macho" dippers.

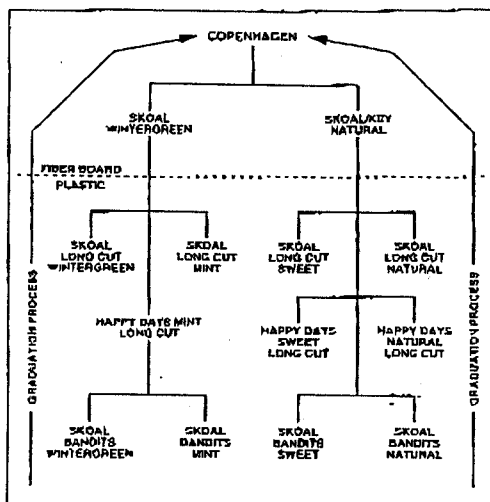


Figure 1 UST's "graduation strategy", as depicted in a UST document exhibited in the *Marrese vs US Tobacco Company* lawsuit. New users start with Skoal Bandits, progress to Happy Days brands or other Skoal products, and then "graduate" to Copenhagen

In addition, the mouth bag may have served as a barrier to nicotine absorption. Since 1984 UST has introduced an increasing variety of flavours of Long Cut. Today Cherry and Mint Long Cut are the two UST products most commonly given out as free samples, replacing Skoal Bandits as the sample of choice.

According to the 1972 Lotus memorandum¹⁵

There should be three products of three different tastes and strength of nicotine: a) High nicotine, strong tobacco flavor for consumer who presently uses tobacco in the mouth. Can this be accomplished by using present product of Copenhagen or Etna?... b) Medium strength of nicotine. Can this be accomplished by using a Happy Days product?... c) Low nicotine, sweet product. Can this be done by using present size Lotus?... Do we flavor this product with honey, chocolate or vanilla?

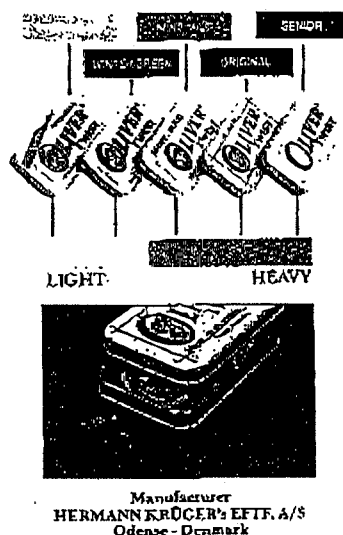


Figure 2 Oliver Twist, a smokeless tobacco product made by the Danish company Hermann Krüger and marketed in the US, comes in five strengths, from Freshman ("perfect for beginners") to "Senior"

According to several sources described below, the company developed a strategy for new users to "graduate" up to higher brands over time. A document entitled *The graduation theory*, prepared by marketing consultants for UST, described the process:

New users of smokeless tobacco - attracted to the category for a variety of reasons - are most likely to begin with products that are milder tasting, more flavored and/or easier to control in the mouth. After a period of time, there is a natural progression of product switching to brands that are more full-bodied, less flavored, have more concentrated "tobacco taste" than the entry brand.¹⁶

According to a 1983 article in *Advertising Age*,¹⁷ "the new product is designed to hook consumers into what Mr [Barry] Nova [president of UST's Tobacco Division] called a 'graduation process' from Bandits to Skoal itself and then to Copenhagen, the company's strongest chewing [sic] tobacco."

In 1985, Jack Africk, Vice President of UST, explained the strategy in a company newsletter *Up to snuff*²⁰: "As far as our strategy for entering a new market is concerned - for each market there is a set of criteria which have been established, and must be met. Skoal Bandits is the introductory product, and then we look towards establishing a normal *graduation process* [emphasis added]."

Nova, who left UST in 1984, described the process¹⁴: "For people who haven't ever tasted [snuff], you'd of course begin them on a product that had a little tobacco taste, but wouldn't turn them off. The *graduation* [emphasis added] is to a more tobacco-y product... to a stronger product."

Despite the impressive documentation of the graduation strategy in publicly disclosed UST literature and public statements by current and former employees of the company, UST officially denies that it has used a graduation process. However, Ken Carlson, a division manager in UST's sales department

OLIVER TWIST is made in 5 distinct varieties.

- Freshman: With a taste of anise light and fresh - perfect for beginners.
- Wintergreen: A refreshing taste of wintergreen - a perfect combination with the taste of supreme quality tobacco.
- Mint-Mild: Fresh peppermint flavor that tempers the taste of tobacco. Preferred by women.
- Original: An old recipe based on sweet licorice and a genuine taste of dark fired tobacco. Excellent for experienced smokers and connoisseurs.
- Senior: Larger sized rolls with a seasoned flavor enhancing the taste of dark fired tobacco. For senior connoisseurs and experienced smokers.

A tin of OLIVER TWIST contains up to 40 portions.

from 1979 to 1986, had this to say about the matter¹⁴: "They talked about graduation all the time—in sales meetings, memos and manuals for the college program. It was a mantra."

The graduation process was even depicted schematically in a UST diagram exhibited at the *Marsee* case (figure 1).²¹ The diagram shows a "graduation process", beginning with Skoal Bandits, progressing to Happy Days brands or other Skoal products, and then finally to Copenhagen.

Another oral snuff manufacturer, the Danish company Hermann Krüger, sells smokeless tobacco in the US under the brand name Oliver Twist. Oliver Twist brands come in five strengths ranging from "light" to "heavy" (figure 2). The lightest brand is called "Freshman" and is, according to the company's instructions, "perfect for beginners". "Senior" is the highest strength brand. It is for "Senior connoisseurs and experienced smokers".²²

The Pinkerton Tobacco Company, which is owned by Swedish Tobacco Company, manu-

factures a low nicotine product called Renegades, which is sold in mouth bags, and a high nicotine brand called Red Man oral snuff. The Conwood Company sells both a low nicotine brand, Hawken, and a high nicotine brand, Kodiak.⁷

Advertising and promotion of a graduation strategy

Oral snuff manufacturers promote and advertise starter brands through free sampling, which is done through the mail and at sponsored events. In addition, UST has had a College Marketing Program.²³ The only products given as free samples by UST are the low nicotine brands Skoal Bandits, Skoal Mint, and Skoal Cherry Long Cut. Cherry is a flavour particularly appealing to young people because of the sweet taste. During the last six months of 1984, over 400,000 free samples were mailed by UST in response to national magazine advertisements.²⁴ According to the Federal Trade Commission,²⁵ \$15.8 million (13% of all smokeless tobacco advertising and promotional expenditures) was spent on free sampling in 1993 and \$22.9 million (19%) on public entertainment, which included sponsored rodeos, auto racing, music concerts, and other events where free sampling is routinely done. A major UST target for these samples is the young. In 1977, Bill Falk, a spokesman for US Tobacco, said: "A lot of young people are getting into [snuff]. It's become a status thing. When a kid gets a new pair of jeans, he puts the snuff can in his back pocket and rubs

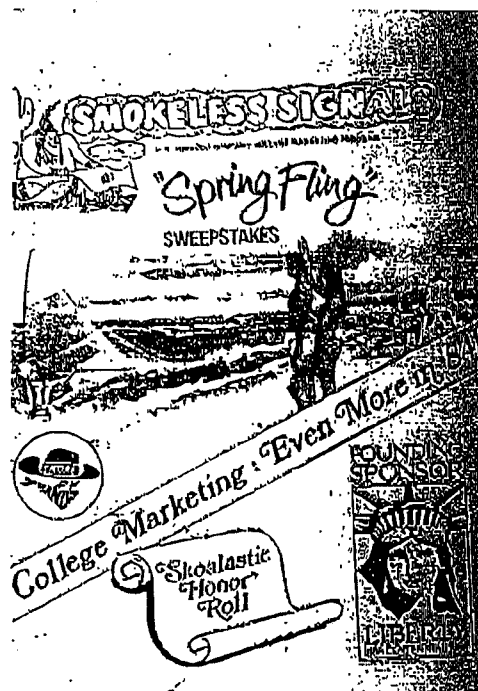


Figure 3 UST communicated with its college sales representatives through its newsletter *Smokeless Signals*

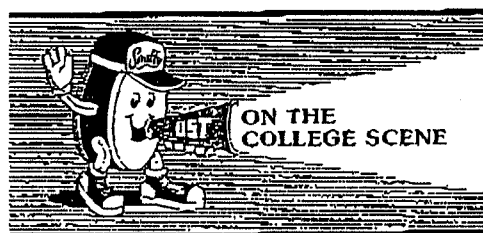


Figure 4 UST's mascot "Snuffy" keeps its sales representatives informed of developments "on the college scene"



It's as easy as 1-2-3.

1. Skoal Bandits is tobacco that comes wrapped in a neat, easy-to-use pouch. All you do is put it between your cheek and gum—the refreshing taste comes right through.
2. You don't chew it. Skoal Bandits is not chewing tobacco—it's a noater way to enjoy tobacco. There will be less saliva if you put the pouch between your upper cheek and gum.
3. You can enjoy Skoal Bandits anywhere. So it's perfect to take out in places where you can't light up. We're sure you'll be enjoying the "little pouch of tobacco pleasure" for a long time to come.



Figure 5 A brochure for Skoal Bandits explains that use of the product is "as easy as 1-2-3"

Walt Garrison answers your questions about moist smokeless tobacco.

Q: What's the difference between moist smokeless tobacco and cigarettes?

A: Moist smokeless tobacco is a tobacco product that is moist and does not burn. It is a tobacco product that is moist and does not burn. It is a tobacco product that is moist and does not burn.

Q: How do I use moist smokeless tobacco?

A: You use moist smokeless tobacco by placing a pinch of tobacco in your mouth and chewing it. The tobacco is moist and does not burn. It is a tobacco product that is moist and does not burn.

Q: How long does it last?

A: Moist smokeless tobacco lasts for several hours. It is a tobacco product that is moist and does not burn. It is a tobacco product that is moist and does not burn.

Q: Is there a difference among the three brands?

A: There are three brands of moist smokeless tobacco: Copenhagen, Happy Days, and Skoal. Each brand has its own unique flavor and taste. It is a tobacco product that is moist and does not burn.



Figure 6 A UST advertisement from Parade magazine (8 June 1980) uses former Dallas Cowboys football star Walt Garrison to explain how to use smokeless tobacco products. It explains that "learning is part of the fun" and that "New users, of all ages (emphasis added),...are joining up all the time."

it until the outline shows. It shows he's old enough to chew."²⁶

UST's College Marketing Program was established in the late 1970s and employed college representatives on hundreds of campuses throughout the US (figures 3 and 4). The following quotes are from the company's *College marketing manual*.²⁷ This was the training manual for student representatives. The first quotation describes the importance of creating new consumers from college students today because of their value as the adult market of the future: "Consider that within this vitally important market many college/young adult consumers have never had the opportunity to experience the enjoyment of smokeless tobacco. Success in reaching the college student today will determine the continued popularity and growth for our products in the young adult and older market segments tomorrow."

The next two quotes deal with the importance of providing free samples to college

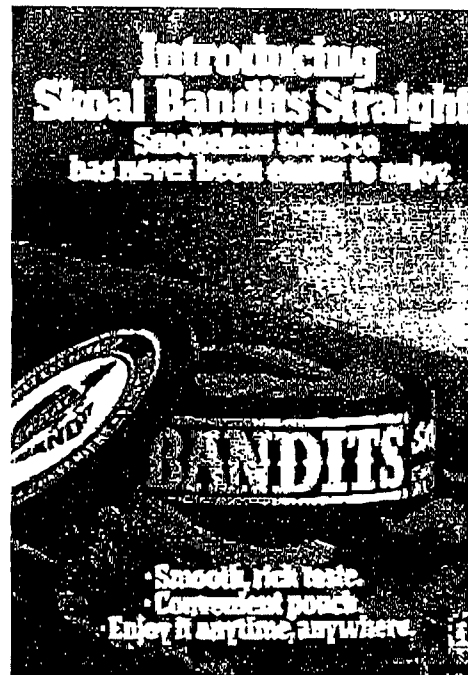


Figure 7 An advertisement "introducing" Skoal Bandits, a smokeless tobacco product "easier to enjoy"



Figure 8 The advertisement for Copenhagen employs the slogan 'sooner or later it's Copenhagen', the highest free nicotine brand

students and of giving them specific instructions about how to use snuff:

It is fact that the only way to create a new user of our product is by having the consumer actually try the product. We are the ones who must get out to the consumer and show him the proper technique of using our smokeless tobacco.

Your number one objective is quality one-on-one sampling. When sampling, try to zero in on young smokers (smokers are usually more accepting of a

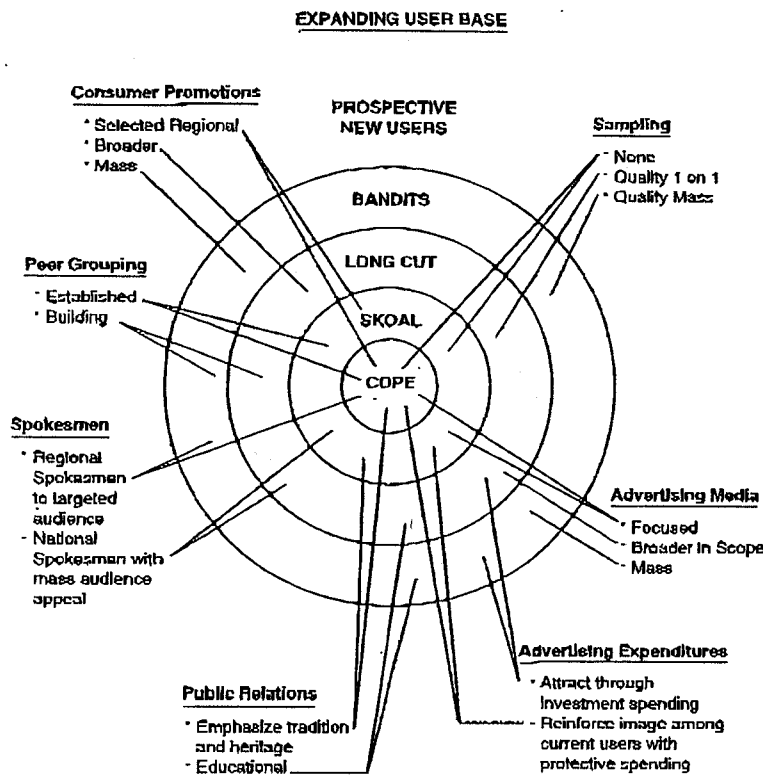


Figure 9 A UST chart, shown at a November 1994 Congressional hearing, which describes seven activities used by UST to expand its "user base". (This chart is a replica of the one presented at the hearing.)

sample as they already use tobacco, and 85% of smokers want to quit). Quality sampling presentations should include teaching non-users how to open the can, start with a small pinch, don't swallow product or juices, it will take time to get used to using oral tobacco, so keep on trying it, and inform the non-user where he can purchase the product.

Another quote from the manual instructs the student representative on how to deal with health inquiries from potential consumers or negative responses:

Don't discuss health issues with anyone. If someone is negative towards your sampling, a good line to use is that "If a person chooses to use tobacco, we would like them to use our product instead of someone else's product." Any further health related inquiries should be addressed to the Greenwich Office.

According to Leading National Advertisers, advertising expenditures for the low nicotine brands far outweigh those for the higher nicotine brands. In 1983, total US Tobacco advertising dollars for Skoal Bandits accounted for 47% of all company snuff advertising,²⁸ even though the brand made up only 2% of market share by weight.²⁹ Copenhagen, the highest nicotine brand made by UST, had only 1% of advertising expenditures²⁸ but 50% of market share.²⁹ UST spent \$5.8 million in 1990-1 for print advertising for Skoal and Skoal Bandits.³⁰ No print advertising was reported for Copenhagen.

Advertising messages for the low nicotine brands further support their role in the graduation strategy. Advertisements have provided non-users with instructions on how to use oral tobacco. A text for a Skoal Bandits brochure (figure 5) reads, "It's as easy as

1-2-3.... All you do is put it between your cheek and gum—the refreshing taste comes right through." In a 1980 advertisement by UST (figure 6), former Dallas Cowboys football star Walt Garrison answered questions about moist snuff, including this one:

Q: Does Going Smokeless take some getting used to?

A: Sure. At first you could feel a slight irritation on the gum, and the tobacco may move around your mouth more than it should, and you might work up too much saliva. But learning is part of the fun and these things pass with practice. Two weeks should make you a "pro."

This advertisement actually instructs the new user to ignore "irritation"—a natural warning sign of disease. It also boasts that: "New users, of all ages [emphasis added]... are joining up all the time."

Other advertisements show how advertising promotes the graduation strategy. An advertisement for Skoal Bandits used selling messages such as "Introducing" and "Easier to enjoy" (figure 7). In contrast, one for Copenhagen simply states: "Sooner or later—it's Copenhagen" (figure 8).

A 1986 brochure for Skoal Bandits³¹ offers new users instructions on how to use the product and conveys a clear understanding of how to develop tolerance to the toxic effects of a drug. According to the brochure:

How long should I keep the pouch in my mouth? If you haven't tried Skoal Bandits before, we recommend that you keep your first one in for about a minute - then remove. The next time you try another one, leave it in for a bit longer. Like your first beer, Skoal Bandits can be a taste that takes time to acquire and get the most out of. After four or five Skoal Bandits you'll find you've developed quite a taste for them and you'll want to keep a pouch in as long as the flavour lasts - this varies from person to person.

Further evidence documenting industry intent to move new users from low to high nicotine snuff products was presented to the US House of Representatives Subcommittee on Health and the Environment at a hearing on 29 November 1994 on smokeless tobacco. Hearing Exhibit 4, a UST document released by Henry Waxman, then subcommittee chairman, describes seven activities that were used to expand UST's "user base" (figure 9). According to the exhibit, these marketing activities are intended to move new users from Skoal Bandits to Long Cut, to Skoal, and finally to Copenhagen. The seven marketing tools include sampling, advertising media, advertising expenditures, public relations, spokesmen, peer grouping, and consumer promotions. In the case of the low nicotine brand Skoal Bandits, mass sampling, mass advertising, and mass promotions are recommended. In contrast, the expansion strategy for the high nicotine Copenhagen calls for no sampling, focused advertising, and selected regional consumer promotions.

Conclusions

This evidence indicates that oral snuff manu-

facturers manipulate levels of free nicotine in oral snuff brands and that UST employs a graduation strategy based on free sampling of low nicotine brands with the intent of causing and maintaining nicotine dependence among young men with no history of tobacco use. The marketing campaign has resulted in a surge in snuff use among adolescent males. Other nations that were recently faced with the new introduction of oral snuff into their markets banned the products before use became widespread. Bans are now in effect in Australia, New Zealand, Hong Kong, and the European Union.³² The long-term impact on oral health and oral cancer from this marketing programme will be devastating unless steps are taken immediately to prevent smokeless tobacco manufacturers from promoting nicotine addiction to youth.

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**Aging of Oral Moist Snuff and the Yields of Tobacco-Specific
N-Nitrosamines (TSNA)**

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Progress Report

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Methods

pH

2 g snuff is suspended in 20 ml water, stirred for 15 minutes and the supernatant is measured with a combination electrode until the pH has stabilized.

Moisture

The moisture content was determined with the Dean-Stark method: 15 g snuff is co-distilled with 100 ml benzene and the resulting water collected is measured.

Nicotine

To 200 mg moist snuff is added 4 ml methanol containing 1 % KOH and 50 ppm quinoline (internal standard). The mixture is then sonicated for one hour, filtered through a membrane filter, diluted ten-fold with methanol containing 50 ppm quinoline and analyzed by gas chromatography-NPD on a 60-m DB-5 capillary column.

Tobacco-Specific Nitrosamines

To 5 g of moist snuff is added 85 ml phosphate-citrate buffer pH 4.5 containing 20 mM ascorbic acid and 10 µg of ethyl-NNK is added as internal standard. The mixture is sonicated for one hour and filtered through Celite. The aqueous solution is extracted with dichloromethane on a Chemelut SPE cartridge and the extract is concentrated to 1 ml. The concentrate is analyzed by GC-TEA on a 60-m DB-5 column.

Results

Table 1 presents the data for pH, moisture and nicotine of the six moist snuff brands tested. In all cases, the pH is high enough to allow nicotine present in its unprotonated form (12 % at pH 7 to 81 % at pH 8.5; 11). Nicotine levels ranged between 2 and 3 %. Considering the relatively high pH of all brands, it seems that these brands are tailored for the seasoned users in contrast to a recently tested brand (Hawken), which was low in nicotine (0.4 %) and pH (6.0), clearly designed for a "beginner" (2). It has been demonstrated that unprotonated (free) nicotine is much quicker absorbed through the mucous membrane than protonated nicotine. This gives the snuff dipper a quicker nicotine effect than the weakly acidic snuff (12). The moisture of all brands varied between 50 and 56 %. The moisture content of all brands was monitored for all six brands over the course of 6 months. Figure 1 illustrates the effect of aging on the moisture content. It can be seen that the two brands sold in cardboard boxes (Copenhagen and Ettan Snus) have the greatest loss of water while those brands sold in plastic cans had a much smaller moisture loss. Figure 1 also shows the uneven loss of moisture (especially Ettan Snus, month 3 and 5 and

significantly reduced potential for carcinogenic activity. The technology clearly exists to manufacture snuff with low levels of TSNA, as shown by the Swedish brand and the brand made by Swedish Match.

The TSNA levels in the two leading U.S. snuff brands, accounting for 69 % of the 1999 U.S. market (14), were found to increase during 6 months storage at room temperature between 30 and 130 %, while the TSNA concentration in the Swedish brand increased inconsequentially. These observations suggest the possibility that Government agencies may mandate that commercial snuff brands significantly reduce their levels of TSNA with the goal of $\leq 10 \mu\text{g/g}$, and that snuff be kept stored refrigerated by wholesale and retail stores. In future studies it must be documented at which temperature snuff can be stored without an increase of the concentrations of TSNA.

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Table 3. TSNA Levels as a Function of Storage Conditions

Skoal

Months	NNN	NAT	NAB	NNK
0	20.8	36.8	2.1	4.3
2	26.0	38.7	2.6	6.0
4	30.4	37.1	2.9	6.6
6	29.3	36.1	3.0	5.9

Copenhagen

Months	NNN	NAT	NAB	NNK
0	14.3	22.0	1.4	3.4
2	20.7	30.9	2.2	6.8
4	26.0	38.7	3.0	8.2
6	31.6	45.2	4.1	13.4

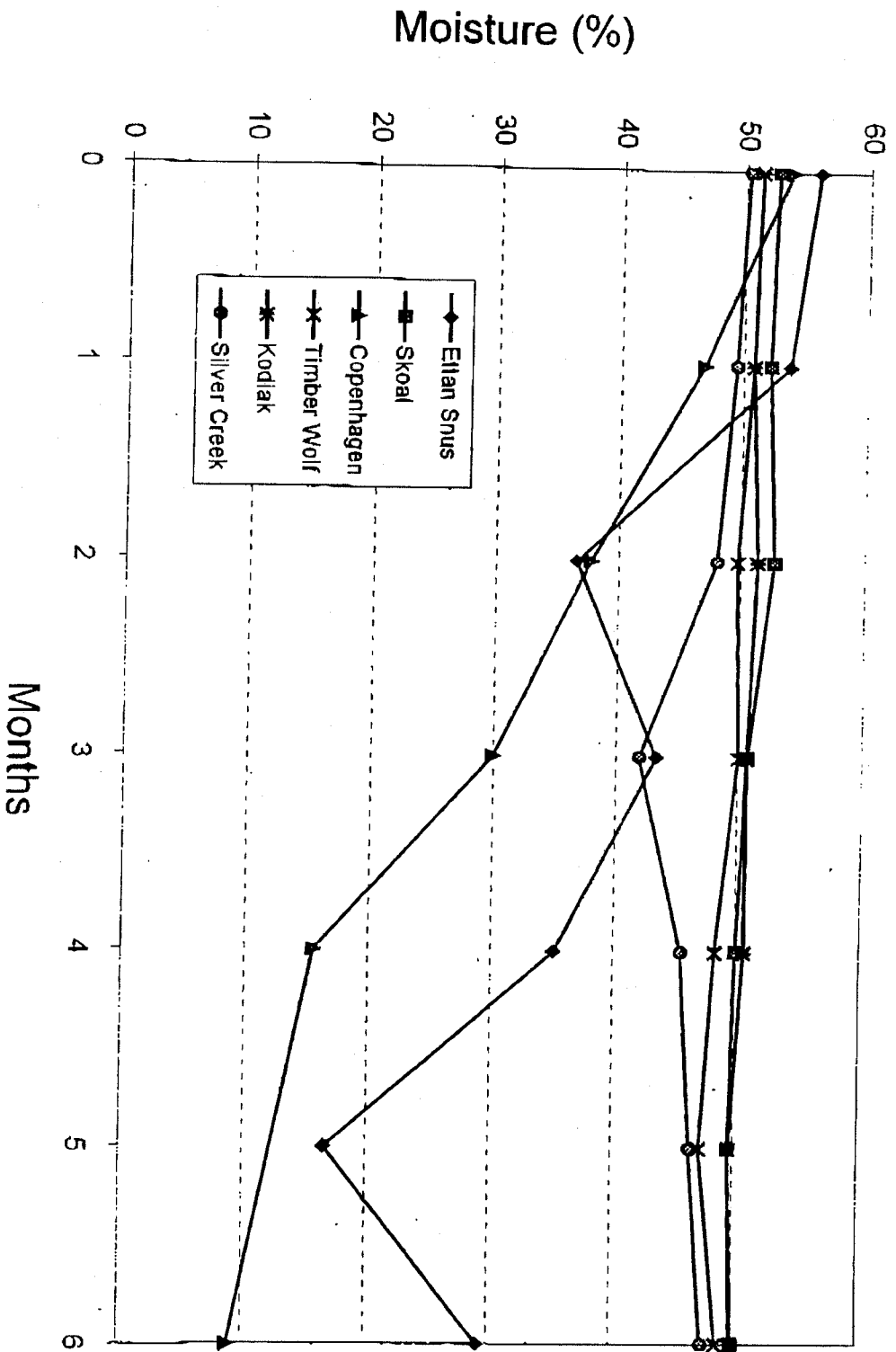
Timber Wolf

Months	NNN	NAT	NAB	NNK
0	3.0	3.3	0.25	0.95
2	3.4	3.2	0.28	0.90
4	3.8	3.1	0.29	1.0
6	3.6	3.0	0.32	0.90

Silver Creek

Months	NNN	NAT	NAB	NNK
0	41.4	61.2	7.5	17.8
2	53.8	67.2	10.7	22.4
4	55.9	66.5	9.3	20.3
6	51.5	63.7	8.5	17.6

Figure 1. Snuff Moisture Change



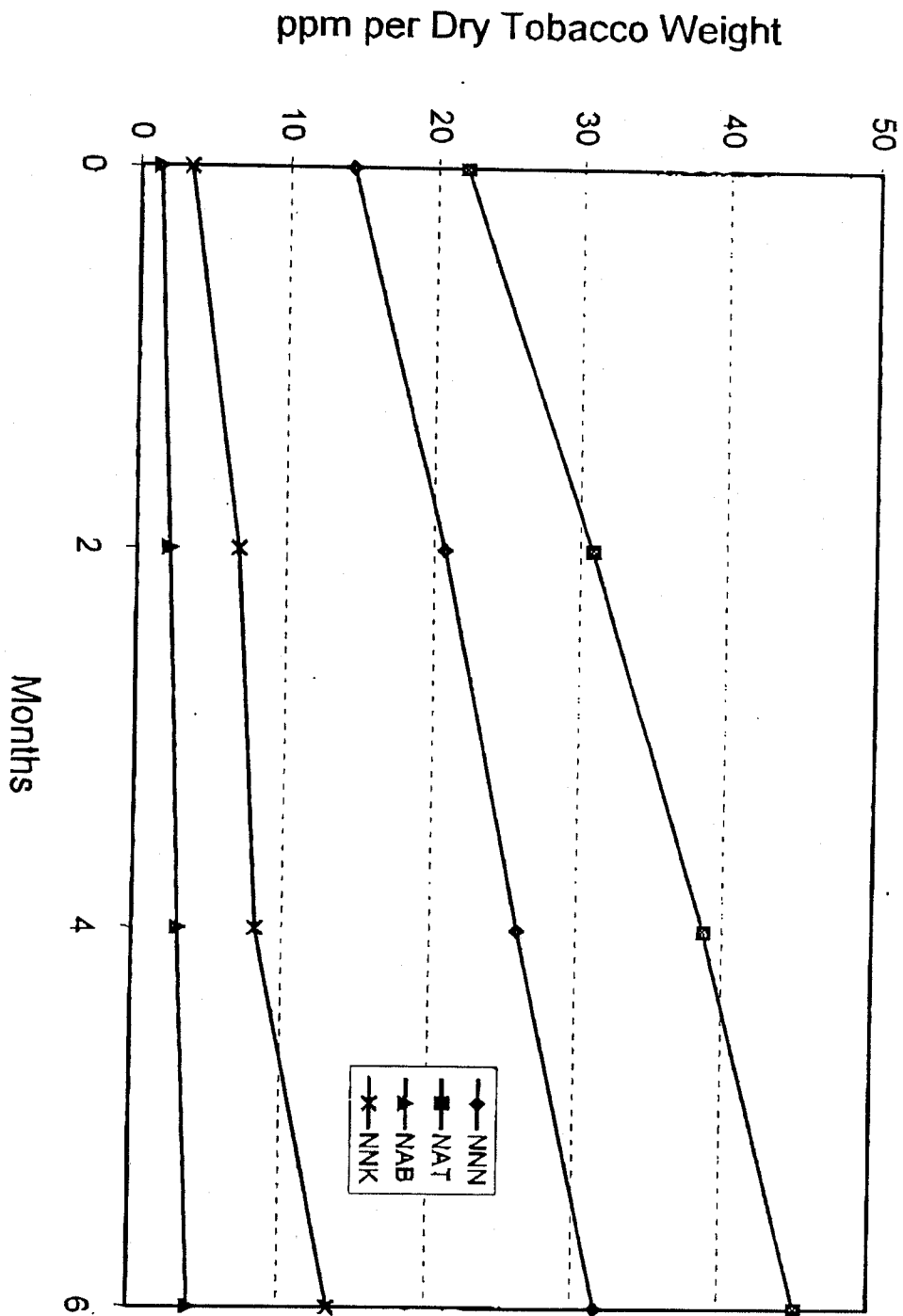


Figure 3. Effect of Storage on TSNA Levels
Copenhagen

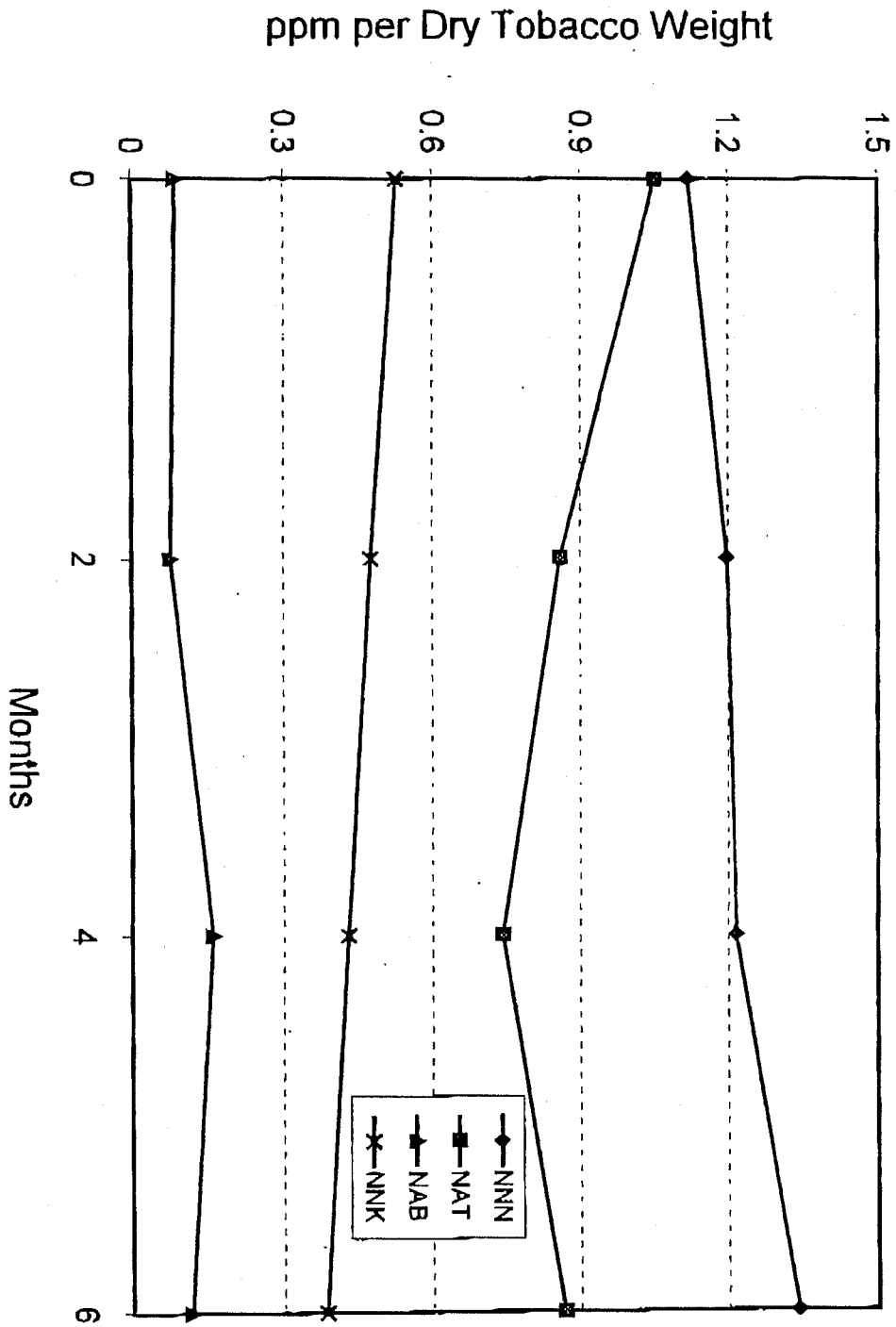


Figure 7. Effect of Storage on TSNA Levels
Eitan Snus